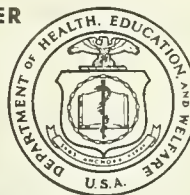


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NATIONAL COMMUNICABLE DISEASE CENTER

# Morbidity and Mortality



Vol. 16, No. 43

WEEKLY  
REPORT

Week Ending  
October 28, 1967

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE

BUREAU OF DISEASE PREVENTION AND ENVIRONMENTAL CONTROL

## INTERNATIONAL NOTES

### OBSCURE DISEASE RELATED TO AFRICAN MONKEYS Identification of Agent

Further information regarding the identification of the agent responsible for the obscure disease related to African green monkeys has been released from the Microbiological Research Establishment in Porton, England.

#### HISTOLOGY: Liver

The early passage guinea pig livers contained no obvious degenerative or inflammatory changes. Single cells or groups of 2 or 3 cells could, however, be found scattered about the liver and were found to contain varying amounts of granules. These granules were either clumped together to fill the whole cytoplasm or appeared as dis-

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crete small pleomorphic structures either in the form of larger spheres or smaller almost bipolar granules. They were as a general rule basophilic and stained a dark purple with H & E and reddish-purple with Giemsa. In sections treated according to Macchiavello, the granules stained bright red. Feulgen preparations revealed Feulgen-positive material in the cytoplasm in the same situation as the

(Continued on page 362)

## CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES (Cumulative totals include revised and delayed reports through previous weeks)

DISEASE	43rd WEEK ENDED		MEDIAN 1962 - 1966	CUMULATIVE, FIRST 43 WEEKS		
	OCTOBER 28, 1967	OCTOBER 29, 1966		1967	1966	MEDIAN 1962 - 1966
Aseptic meningitis	89	53	53	2,487	2,515	1,770
Brucellosis	4	1	5	208	210	311
Diphtheria	5	7	9	122	165	216
Encephalitis, primary:						
Arthropod-borne & unspecified	47	49	---	1,358	1,832	---
Encephalitis, post-infectious	10	7	---	679	637	---
Hepatitis, serum	47	30		1,809	1,158	
Hepatitis, infectious	741	721	751	31,779	26,442	31,753
Malaria	54	17	1	1,687	385	81
Measles (rubeola)	299	731	1,061	59,362	192,862	363,933
Meningococcal infections, total	27	40	41	1,855	2,940	2,297
Civilian	26	40	---	1,737	2,659	---
Military	1	---	---	118	281	---
Poliomyelitis, total	---	5	5	26	82	98
Paralytic	---	5	5	21	77	78
Rubella (German measles)	285	254	---	41,272	43,074	---
Streptococcal sore throat & scarlet fever	7,372	6,541	5,977	367,684	345,833	322,911
Tetanus	3	1	7	186	161	228
Tularemia	3	6	7	150	152	241
Typhoid fever	10	6	6	352	327	371
Typhus, tick-borne (Rky. Mt. spotted fever)	1	3	2	292	229	215
Rabies in animals	42	79	61	3,604	3,427	3,427

## NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax	2	Rabies in man	2
Botulism	2	Rubella, Congenital Syndrome	5
Leptospirosis	33	Trichinosis: N.Y.C.-1	52
Plague	2	Typhus, murine: Ark.-1, Tex.-2	38
Psittacosis	38	Polio, Unsp.	5

Excludes report from Nevada, State holiday.

## OBSCURE DISEASE RELATED TO AFRICAN MONKEYS

(Continued from front page)

granules in H & E preparations. The granules were also PAS positive and stained brown with Von Kossa's method. After hydrochloric acid treatment, however, Von Kossa's reaction was negative, but when the same sections were counterstained with H & E, the granules were found undamaged within the cells and staining a dark purple color.

In guinea pigs of the 3rd and 4th passage, small focal necrotic lesions could be found in the liver. In some livers, these necrotic areas were often confluent and formed sharply circumscribed areas. Usually no granules were found in the centre of the completely necrotic liver cells, but comparatively large numbers of granules were found in the cells surrounding the periphery of the necrotic zones. In cells undergoing early degeneration without changes in the nucleus, the cytoplasm appeared to contain small numbers of discrete granules.

No characteristic lesions have been found in any other organ except that reticulo-endothelial cell proliferation was very marked in lymphoid tissue.

**HAMSTERS**

One-day-old hamsters inoculated either IP or IC with 5th passage guinea pig blood taken in the febrile stage became sick on P.I.D. 9 and 10. Tissues have been removed for histology and also have been further passaged in suckling hamsters.

**GUINEA PIGS**

Infective guinea pig blood does not infect guinea pigs through intact skin, nor does the disease spread from infected to uninfected guinea pigs in the same cage.

**ANTIBIOTIC SENSITIVITY**

Seven groups of guinea pigs were used in the experiment. Five groups, (a), (b), (c), (d), and (e), were inoculated with infective guinea pig blood on Day 0.

Group (a) received terramycin (12.5 mg/day) starting Day 0.

Group (b) received chloramphenical (37.5 mg/day) starting Day 0.

Group (c) received terramycin (12.5 mg/day) starting Day 4 (i.e. when guinea pigs were febrile).

Group (d) received chloramphenical (37.5 mg/day) starting Day 4.

Group (e) remained as infectivity controls.

The two remaining groups, (f) and (g), were antibiotic controls, (f) receiving terramycin and (g) receiving chloramphenical daily in the doses shown above.

Neither terramycin nor chloramphenical prolonged the course of the illness although guinea pigs treated with both antibiotics had lowered temperatures. Antibiotic control guinea pigs remained well. After a week's course of antibiotics, these same antibiotic control guinea pigs were infected experimentally and antibiotics continued. They remained afebrile but the course of the illness was not prolonged and they died on P.I.D. 9.

**TISSUE CULTURE**

Two continuous vervet monkey kidney cell lines (VERO) and BHK<sub>21</sub> have been inoculated as cover-slip preparations with infected guinea pig material and examined after fixation in formol saline or methanol at various intervals after infection. VERO cells have shown no changes so far but BHK<sub>21</sub> cells have developed a peculiar vacuolization and small bodies have been seen. More work is under way following this observation.

**SEROLOGY**

Convalescent sera from febrile guinea pigs and patients have been tested against rickettsial pox, typhus, and Rocky Mountain spotted fever antigens in a complement fixation test. All were negative at dilutions of 1/5.

Convalescent (19 day) sera from febrile guinea pigs were tested in a haemagglutination-inhibition test against Semliki Forest, Sindbis, Chikungunya, Japanese encephalitis, Dengue 1, Dengue 2, Tembusu, Langat, West Nile, Yellow Fever, Louping-ill, Bunyamwera, and Tahyna antigens and all were negative. An antigen prepared from infective guinea pig spleens was tested against these same sera in a complement fixation test. The sera were slightly anticomplementary but appeared to fix complement. This is being confirmed.

Immune guinea pig serum has been tested against psittacosis antigen in a complement fixation test. The results were negative. Known psittacosis antiserum was also negative when tested against an antigen prepared from spleen of infected guinea pigs.

**FILTRATION**

The infective agent does not pass through gradocol membranes up to average pore diameters of 340 mμ. Results of filtration using larger pore sizes are not yet available.

(Reported by Dr. C. E. Gordon Smith, Microbiological Research Establishment, Porton, England.)

### EPIDEMIOLOGIC NOTES AND REPORTS

#### ENCEPHALITIS SURVEILLANCE - South Texas

Following extensive flooding in the Rio Grande Valley in Texas, sharp increases in mosquito populations were reported from that area. Several species have been detected including *Culex tarsalis*, the principal vector of Western Equine Encephalitis (WEE). Of 60 pools of *C. tarsalis* thus far subjected to viral isolation procedures, one yielded WEE virus. Other encephalitis viruses have not been detected in these mosquitoes.

In addition to local spraying programs, extensive aerial spraying utilizing the ultra low volume Malathion technique has been carried out. Low-flying airplanes have distributed 3 fluid ounces of 95 percent Malathion per acre in particle size of 50-60 micra. A marked decline in mosquito counts subsequently occurred.

Two cases of encephalitis in horses were diagnosed clinically in Cameron County in early October; one of



these was fatal. Acute serum from that horse revealed a hemagglutination inhibition titer of 1:160 against WEE virus. No cases of human arbovirus encephalitis have been confirmed, though several suspected cases were individually investigated as part of the intensive surveillance program.

(Reported by *Aedes aegypti* Program, NCDC; Van C. Tipton, M.D., Director, Division of Communicable Disease Control, Preventive Medical Services, and J.V. Irons, Sc.D., Chief of Laboratories, Texas State Dept. of Health; NCDC Ecological Investigations Laboratories, Ft. Collins, Colorado; 4500th Special Aerial Spray Flight, TAC, U.S. Air Force; and an EIS Officer.)

### SHIGELLOSIS – Philadelphia, Pennsylvania

On October 16, 1967, the Epidemiology Division of the Philadelphia Department of Health was notified of an outbreak of gastroenteritis at a small private college. Of the 594 students and 107 staff members, 180 persons became ill between October 14 and 23; 84 percent experienced onset on October 15 and 16 (Figure 1). Symptoms consisted of stomach cramps, severe diarrhea, dizziness, fever up to 104°F., and malaise. Duration of illness was from 2 to 7 days.

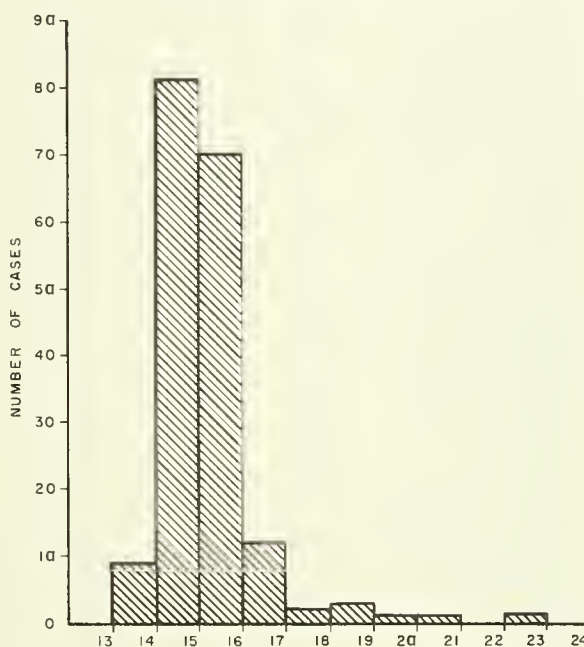
Most of the 436 students who resided at the college ate all their meals in the college cafeteria; it was not possible to incriminate any one meal as a common source. Following an alumni banquet held at the school on October 14, at least 20 of 258 guests subsequently became ill. However, three students who did not eat at the college on October 14 or 15 became ill. A few students and staff members who rarely ate meals at the college also became ill; they indicated that they did drink from water fountains in the school. The only factor in common to all those who became ill is the consumption of water, or food which had been prepared using water, from the school water system.

Investigation of the water system revealed that a waterline had broken in the kitchen on October 8, resulting in the flooding of the kitchen and cafeteria. Cross-connections were found between the sewage and fresh water system which could have resulted in backflow of sewage into the fresh water system as a consequence of the transient negative pressure during the break in the waterline.

From rectal swabs taken from 152 ill persons, 100 bacteriologic cultures yielded *Shigella sonnei*. Rectal swabs were also obtained from 316 students and staff members who were not ill; 13 cultures yielded *S. sonnei*. Water samples taken on October 18 yielded 5 *E. coli* per 100 ml; no shigellae were isolated from the water.

It was concluded that the outbreak probably resulted from the presence of *S. sonnei* in the water system for 1 or 2 days. The inoculum would have to have been of sufficient size to overcome the chlorine in the water. Foods such as fruit drinks and gelatine puddings which were pre-

Figure 1  
SHIGELLOSIS OUTBREAK – PHILADELPHIA, PA.  
ONSET OF SYMPTOMS OF 189 PATIENTS  
OCTOBER 14-21, 1967



pared using this water on October 9 or 10 could have led to further exposure when served later in the week.

(Reported by Lewis D. Polk, M.D., Deputy Health Commissioner, Community Health Services; Kristine S. Knisely, M.D., Senior Physician, Division of Health Production; Alfred Bogucki, M.D., Director, Division of Epidemiology; Sylvan Fish, M.D., Chief, Communicable Disease Control; Browne C. Lucas, P.E., M.P.H., Chief, Environmental Engineering Section, Division of Environmental Health, all with the Department of Health, City of Philadelphia, Pa.; and an EIS Officer.)

### DIPHTHERIA – Alabama

In addition to the 14 diphtheria cases including two deaths recently reported from Alabama (MMWR, Vol. 16, No. 41), four more confirmed cases, two of which were fatal, were reported to the Alabama State Department of Health. One case occurred in a 1-year-old Negro female from Dallas County, one case in a 7-year-old Negro female from Mobile County, and two fatal cases in a farm family

from Thomaston, Alabama. The latter cases lived in Marengo County which is due west of Dallas County, the site of 11 of the 14 previously reported cases.

The first recent death was in a 6-year-old unimmunized Negro child who expired on October 26, 1967. The child's 42-year-old mother died the following day. Both

(Continued on page 368)

## FOR WEEKS ENDED

OCTOBER 28, 1967 AND OCTOBER 29, 1966 (43rd WEEK)

AREA	ASEPTIC MENINGITIS		BRUCELLOSIS	DIPHTHERIA	ENCEPHALITIS			HEPATITIS			
					Primary including unsp. cases		Post- Infectious	Serum		Infectious	
	1967	1966			1967	1966		1967	1966	1967	1966
UNITED STATES...	89	53	4	5	47	49	10	47	30	741	721
NEW ENGLAND.....	1	5	-	-	2	-	-	-	1	32	33
Maine.....	-	-	-	-	-	-	-	-	-	2	5
New Hampshire.....	-	-	-	-	-	-	-	-	-	-	-
Vermont.....	-	-	-	-	-	-	-	-	-	-	-
Massachusetts.....	-	4	-	-	1	-	-	-	-	13	16
Rhode Island.....	1	-	-	-	1	-	-	-	-	1	-
Connecticut.....	-	1	-	-	-	-	-	-	1	16	12
MIDDLE ATLANTIC.....	29	5	-	-	4	11	-	20	11	108	137
New York City.....	3	2	-	-	1	8	-	18	7	41	40
New York, up-State.....	1	-	-	-	-	2	-	-	1	14	34
New Jersey.....	23	1	-	-	-	1	-	1	3	27	32
Pennsylvania.....	2	2	-	-	3	-	-	1	-	26	31
EAST NORTH CENTRAL...	6	6	-	1	19	5	1	3	-	125	111
Ohio.....	-	-	-	-	15	2	-	-	-	31	22
Indiana.....	-	3	-	1	-	1	-	-	-	18	6
Illinois.....	-	2	-	-	2	2	1	-	-	18	28
Michigan.....	5	1	-	-	1	-	-	3	-	53	46
Wisconsin.....	1	-	-	-	1	-	-	-	-	5	9
WEST NORTH CENTRAL...	4	7	-	-	3	9	1	2	-	32	46
Minnesota.....	4	7	-	-	2	2	1	2	-	10	4
Iowa.....	-	-	-	-	1	2	-	-	-	1	3
Missouri.....	-	-	-	-	-	1	-	-	-	12	31
North Dakota.....	-	-	-	-	-	-	-	-	-	-	3
South Dakota.....	-	-	-	-	-	-	-	-	-	-	1
Nebraska.....	-	-	-	-	-	1	-	-	-	3	-
Kansas.....	-	-	-	-	-	3	-	-	-	6	4
SOUTH ATLANTIC.....	16	5	-	-	2	1	1	1	2	89	96
Delaware.....	-	-	-	-	-	-	-	-	-	3	-
Maryland.....	15	-	-	-	-	-	-	1	-	22	26
Dist. of Columbia..	-	-	-	-	-	-	-	-	-	1	2
Virginia.....	-	-	-	-	-	1	-	-	-	20	5
West Virginia.....	-	-	-	-	-	-	-	-	-	13	6
North Carolina.....	-	-	-	-	2	-	-	-	-	2	11
South Carolina.....	-	-	-	-	-	-	-	-	-	2	4
Georgia.....	-	-	-	-	-	-	-	-	-	5	32
Florida.....	1	5	-	-	-	-	1	-	2	21	10
EAST SOUTH CENTRAL...	1	2	1	-	-	-	1	-	-	53	38
Kentucky.....	-	-	-	-	-	-	-	-	-	23	19
Tennessee.....	1	2	-	-	-	-	1	-	-	13	8
Alabama.....	-	-	-	-	-	-	-	-	-	9	10
Mississippi.....	-	-	1	-	-	-	-	-	-	8	1
WEST SOUTH CENTRAL...	5	6	1	3	-	10	3	1	4	80	52
Arkansas.....	1	-	-	-	-	-	-	-	1	4	7
Louisiana.....	2	2	-	3	-	4	2	1	3	12	12
Oklahoma.....	-	-	-	-	-	1	-	-	-	8	3
Texas.....	2	4	1	-	-	5	1	-	-	56	30
MOUNTAIN.....	1	1	1	1	2	2	-	-	-	31	41
Montana.....	-	-	-	1	-	-	-	-	-	2	3
Idaho.....	-	-	-	-	-	-	-	-	-	1	7
Wyoming.....	-	-	-	-	-	-	-	-	-	1	2
Colorado.....	1	1	1	-	2	2	-	-	-	19	4
New Mexico.....	-	-	-	-	-	-	-	-	-	3	11
Arizona.....	-	-	-	-	-	-	-	-	-	4	10
Utah.....	-	-	-	-	-	-	-	-	-	1	4
Nevada.....	---	-	---	---	---	-	---	---	-	---	-
PACIFIC.....	26	16	1	-	15	11	3	20	12	191	167
Washington.....	4	3	-	-	-	2	-	1	-	13	24
Oregon.....	2	-	-	-	1	-	-	-	-	11	16
California.....	18	12	1	-	14	9	3	19	12	166	121
Alaska.....	-	-	-	-	-	-	-	-	-	-	5
Hawaii.....	2	1	-	-	-	-	-	-	-	1	1
Puerto Rico	-	-	-	-	-	-	-	-	-	14	24

## Morbidity and Mortality Weekly Report

365

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES  
 FOR WEEKS ENDED  
 OCTOBER 28, 1967 AND OCTOBER 29, 1966 (43rd WEEK) - CONTINUED

AREA	MALARIA	MEASLES (Rubeola)		MENINGOCOCCAL INFECTIONS, TOTAL			POLIOMYELITIS			RUBELLA	
	1967	1967	Cumulative		1967	Cumulative		Total	Paralytic	1967	
			1967	1966		1967	1966	1967	1967		
UNITED STATES...	54	299	59,362	192,862	27	1,855	2,940	-	-	21	285
NEW ENGLAND.....	3	2	882	2,377	-	73	132	-	-	-	31
Maine.....	-	-	239	235	-	3	11	-	-	-	1
New Hampshire.....	-	-	77	80	-	2	9	-	-	-	-
Vermont.....	-	-	42	292	-	1	4	-	-	-	1
Massachusetts.....	2	2	371	795	-	34	53	-	-	-	5
Rhode Island.....	1	-	62	72	-	4	16	-	-	-	4
Connecticut.....	-	-	91	903	-	29	39	-	-	-	20
MIDDLE ATLANTIC.....	10	16	2,333	18,186	4	301	363	-	-	5	31
New York City.....	-	2	478	8,325	1	53	53	-	-	1	9
New York, Up-State..	2	3	601	2,578	-	73	102	-	-	-	10
New Jersey.....	6	11	503	1,882	2	99	106	-	-	-	9
Pennsylvania.....	2	-	751	5,401	1	76	102	-	-	3	3
EAST NORTH CENTRAL...	1	46	5,732	69,251	7	269	470	-	-	3	54
Ohio.....	-	4	1,163	6,373	2	89	132	-	-	-	13
Indiana.....	-	4	621	5,749	1	43	81	-	-	-	3
Illinois.....	-	5	1,028	11,422	-	57	85	-	-	-	3
Michigan.....	1	14	970	14,684	3	62	125	-	-	3	24
Wisconsin.....	-	19	1,950	31,023	1	18	47	-	-	-	11
WEST NORTH CENTRAL...	2	6	2,893	8,828	2	83	154	-	-	3	28
Minnesota.....	-	-	123	1,648	1	21	35	-	-	-	-
Iowa.....	-	5	760	5,347	-	16	22	-	-	1	22
Missouri.....	-	-	338	536	-	16	60	-	-	-	-
North Dakota.....	1	-	874	1,177	1	3	11	-	-	-	-
South Dakota.....	-	-	55	40	-	6	5	-	-	-	-
Nebraska.....	-	1	649	80	-	13	8	-	-	-	6
Kansas.....	1	-	94	NN	-	8	13	-	-	2	-
SOUTH ATLANTIC.....	18	40	7,065	15,515	5	360	499	-	-	2	21
Delaware.....	-	-	50	260	-	7	4	-	-	-	-
Maryland.....	-	-	168	2,120	2	50	48	-	-	1	6
Dist. of Columbia..	-	-	24	386	1	13	14	-	-	-	-
Virginia.....	1	2	2,216	2,205	-	42	64	-	-	-	-
West Virginia.....	-	14	1,427	5,381	-	34	32	-	-	-	11
North Carolina.....	17	20	914	511	-	71	130	-	-	1	-
South Carolina.....	-	-	511	658	-	30	52	-	-	-	-
Georgia.....	-	-	36	236	2	55	64	-	-	-	-
Florida.....	-	4	1,719	3,758	-	58	91	-	-	-	4
EAST SOUTH CENTRAL...	-	15	5,348	19,904	1	143	255	-	-	1	4
Kentucky.....	-	-	1,396	4,745	-	42	90	-	-	-	1
Tennessee.....	-	14	1,946	12,418	1	61	87	-	-	-	3
Alabama.....	-	1	1,335	1,711	-	26	54	-	-	-	-
Mississippi.....	-	-	671	1,030	-	14	24	-	-	1	-
WEST SOUTH CENTRAL...	2	73	17,744	25,136	2	234	396	-	-	7	1
Arkansas.....	-	-	1,404	972	-	33	36	-	-	-	-
Louisiana.....	2	-	156	99	-	93	148	-	-	-	-
Oklahoma.....	-	4	3,358	513	-	17	21	-	-	1	-
Texas.....	-	69	12,826	23,552	2	91	191	-	-	6	1
MOUNTAIN.....	5	20	4,757	12,152	-	35	91	-	-	-	15
Montana.....	-	12	318	1,848	-	3	5	-	-	-	1
Idaho.....	-	-	393	1,642	-	3	5	-	-	-	-
Wyoming.....	-	-	181	170	-	1	6	-	-	-	-
Colorado.....	4	4	1,594	1,331	-	13	49	-	-	-	7
New Mexico.....	1	-	591	1,141	-	3	10	-	-	-	-
Arizona.....	-	3	1,028	5,325	-	5	10	-	-	-	4
Utah.....	-	1	383	645	-	4	1	-	-	-	3
Nevada.....	---	---	269	50	---	3	5	---	---	-	---
PACIFIC.....	13	81	12,608	21,513	6	357	580	-	-	-	100
Washington.....	8	41	5,555	4,084	4	35	43	-	-	-	32
Oregon.....	-	12	1,667	1,887	-	27	36	-	-	-	4
California.....	5	28	5,068	14,836	2	280	480	-	-	-	48
Alaska.....	-	-	140	560	-	11	17	-	-	-	16
Hawaii.....	-	-	178	146	-	4	4	-	-	-	-
Puerto Rico.....	-	7	2,212	3,028	1	14	17	-	-	-	-

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES  
FOR WEEKS ENDED  
OCTOBER 28, 1967 AND OCTOBER 29, 1966 (43rd WEEK) - CONTINUED

AREA	STREPTOCOCCAL SORE THROAT & SCARLET FEVER	TETANUS		TULAREMIA		TYPHOID		TYPHUS FEVER TICK-BORNE (Rky. Mt. Spotted)		RABIES IN ANIMALS	
	1967	1967	Cum. 1967	1967	Cum. 1967	1967	Cum. 1967	1967	Cum. 1967	1967	Cum. 1967
UNITED STATES...	7,372	3	186	3	150	10	352	1	292	42	3,604
NEW ENGLAND.....	1,008	-	2	-	1	-	7	-	1	-	95
Maine.....	22	-	-	-	-	-	-	-	-	-	22
New Hampshire.....	11	-	-	-	-	-	-	-	-	-	45
Vermont.....	31	-	-	-	-	-	-	-	-	-	22
Massachusetts.....	101	-	1	-	1	-	3	-	1	-	4
Rhode Island.....	28	-	-	-	-	-	1	-	-	-	2
Connecticut.....	815	-	1	-	-	-	3	-	-	-	-
MIDDLE ATLANTIC.....	190	-	12	1	1	-	34	-	35	-	87
New York City.....	9	-	6	-	-	-	17	-	-	-	-
New York, Up-State.....	161	-	1	1	1	-	9	-	9	-	73
New Jersey.....	NN	-	1	-	-	-	4	-	15	-	-
Pennsylvania.....	20	-	4	-	-	-	4	-	11	-	14
EAST NORTH CENTRAL...	478	-	20	-	12	-	39	-	22	3	341
Ohio.....	29	-	4	-	-	-	13	-	11	-	117
Indiana.....	88	-	3	-	2	-	11	-	1	1	78
Illinois.....	76	-	10	-	10	-	5	-	10	-	64
Michigan.....	197	-	3	-	-	-	8	-	-	1	22
Wisconsin.....	88	-	-	-	-	-	2	-	-	1	60
WEST NORTH CENTRAL...	317	1	16	-	21	2	19	-	4	14	848
Minnesota.....	4	1	5	-	-	1	2	-	1	6	168
Iowa.....	122	-	1	-	1	-	3	-	-	7	113
Missouri.....	17	-	8	-	8	1	9	-	1	-	151
North Dakota.....	74	-	-	-	-	-	-	-	-	-	143
South Dakota.....	12	-	1	-	2	-	-	-	-	-	116
Nebraska.....	72	-	-	-	-	-	4	-	2	1	58
Kansas.....	16	-	1	-	10	-	1	-	-	-	99
SOUTH ATLANTIC.....	798	1	40	-	10	2	52	-	116	4	444
Delaware.....	1	-	-	-	-	-	-	-	-	-	-
Maryland.....	162	-	-	-	-	-	2	-	21	-	3
Dist. of Columbia..	2	-	-	-	-	-	2	-	-	-	6
Virginia.....	221	-	9	-	-	-	6	-	28	-	190
West Virginia.....	255	-	1	-	2	1	2	-	1	1	60
North Carolina.....	7	1	7	-	-	-	4	-	46	-	3
South Carolina.....	6	-	1	-	2	-	10	-	5	-	2
Georgia.....	24	-	4	-	5	-	14	-	15	3	110
Florida.....	120	-	18	-	1	1	12	-	-	-	70
EAST SOUTH CENTRAL...	1,134	-	30	-	10	4	62	-	52	8	682
Kentucky.....	78	-	3	-	1	3	27	-	14	3	158
Tennessee.....	871	-	8	-	7	1	11	-	26	4	471
Alabama.....	95	-	11	-	-	-	12	-	12	1	44
Mississippi.....	90	-	8	-	2	-	12	-	-	-	9
WEST SOUTH CENTRAL...	788	-	46	2	79	1	37	1	42	10	786
Arkansas.....	-	-	5	1	46	1	12	1	15	2	105
Louisiana.....	-	-	4	-	8	-	14	-	1	-	65
Oklahoma.....	29	-	3	-	18	-	7	-	16	2	286
Texas.....	759	-	34	1	7	-	4	-	10	6	330
MOUNTAIN.....	1,764	-	2	-	10	1	20	-	9	-	110
Montana.....	60	-	-	-	1	-	2	-	-	-	-
Idaho.....	164	-	-	-	-	-	-	-	-	-	-
Wyoming.....	179	-	-	-	2	1	1	-	-	-	5
Colorado.....	1,088	-	1	-	1	-	12	-	9	-	10
New Mexico.....	121	-	1	-	-	-	2	-	-	-	34
Arizona.....	103	-	-	-	-	-	3	-	-	-	49
Utah.....	49	-	-	-	6	-	-	-	-	-	3
Nevada.....	---	---	-	---	-	---	-	---	-	---	9
PACIFIC.....	895	1	18	-	6	-	82	-	11	3	211
Washington.....	382	-	-	-	2	-	2	-	2	-	2
Oregon.....	87	-	1	-	1	-	3	-	3	-	4
California.....	323	-	13	-	3	-	74	-	6	3	205
Alaska.....	50	-	-	-	-	-	-	-	-	-	-
Hawaii.....	53	1	4	-	-	-	3	-	-	-	-
Puerto Rico.....	7	-	16	-	-	-	6	-	-	-	30



## Morbidity and Mortality Weekly Report

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Week No.  
43

## DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED OCTOBER 28, 1967

(By place of occurrence and week of filing certificate. Excludes fetal deaths)

Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes	Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes
	All Ages	65 years and over				All Ages	65 years and over		
NEW ENGLAND:	826	506	37	44	SOUTH ATLANTIC:	1,101	551	45	83
Boston, Mass.-----	359	196	16	24	Atlanta, Ga.-----	138	60	4	12
Bridgeport, Conn.-----	38	26	7	-	Baltimore, Md.-----	221	97	5	18
Cambridge, Mass.-----	23	13	-	-	Charlotte, N. C.-----	29	13	2	-
Fall River, Mass.-----	17	15	-	1	Jacksonville, Fla.-----	60	33	1	3
Hartford, Conn.-----	55	34	1	5	Miami, Fla.-----	103	61	1	8
Lowell, Mass.-----	20	16	1	-	Norfolk, Va.-----	45	22	3	2
Lynn, Mass.-----	24	14	1	-	Richmond, Va.-----	89	44	1	10
New Bedford, Mass.-----	32	22	1	-	Savannah, Ga.-----	26	5	1	6
New Haven, Conn.-----	41	18	-	6	St. Petersburg, Fla.-----	78	63	5	-
Providence, R. I.-----	50	34	1	2	Tampa, Fla.-----	72	36	8	3
Somerville, Mass.-----	12	6	2	-	Washington, D. C.-----	196	91	11	19
Springfield, Mass.-----	51	34	2	1	Wilmington, Del.-----	44	26	3	2
Waterbury, Conn.-----	28	22	-	1					
Worcester, Mass.-----	76	56	5	4	EAST SOUTH CENTRAL:	628	331	27	30
					Birmingham, Ala.-----	90	44	3	2
MIDDLE ATLANTIC:	3,173	1,854	109	112	Chattanooga, Tenn.-----	45	22	2	4
Albany, N. Y.-----	44	25	1	3	Knoxville, Tenn.-----	49	29	-	-
Allentown, Pa.-----	35	14	2	2	Louisville, Ky.-----	121	73	10	9
Buffalo, N. Y.-----	137	90	-	7	Memphis, Tenn.-----	143	75	5	10
Camden, N. J.-----	36	14	3	3	Mobile, Ala.-----	53	26	1	1
Elizabeth, N. J.-----	34	22	1	1	Montgomery, Ala.-----	39	20	2	1
Erie, Pa.-----	40	23	4	-	Nashville, Tenn.-----	88	42	4	3
Jersey City, N. J.-----	66	41	3	5					
Newark, N. J.-----	80	38	4	3	WEST SOUTH CENTRAL:	1,047	556	44	64
New York City, N. Y.-----	1,635	953	52	46	Austin, Tex.-----	32	18	5	2
Paterson, N. J.-----	30	13	2	-	Baton Rouge, La.-----	43	23	-	9
Philadelphia, Pa.-----	496	295	11	22	Corpus Christi, Tex.-----	30	20	-	1
Pittsburgh, Pa.-----	177	90	3	9	Dallas, Tex.-----	145	89	7	6
Reading, Pa.-----	49	32	5	2	El Paso, Tex.-----	42	22	6	6
Rochester, N. Y.-----	96	63	3	4	Fort Worth, Tex.-----	77	43	3	6
Schenectady, N. Y.-----	21	15	-	1	Houston, Tex.-----	189	84	8	6
Scranton, Pa.-----	50	31	2	1	Little Rock, Ark.-----	51	36	-	4
Syracuse, N. Y.-----	44	33	1	-	New Orleans, La.-----	145	67	5	7
Trenton, N. J.-----	44	29	9	-	Oklahoma City, Okla.-----	64	30	1	3
Utica, N. Y.-----	24	18	-	1	San Antonio, Tex.-----	124	68	4	6
Yonkers, N. Y.-----	35	15	3	2	Shreveport, La.-----	48	25	3	2
					Tulsa, Okla.-----	57	31	2	6
EAST NORTH CENTRAL:	2,596	1,444	75	129					
Akron, Ohio-----	78	50	-	2	MOUNTAIN:	406	240	19	25
Canton, Ohio-----	37	23	8	1	Albuquerque, N. Mex.-----	45	18	9	2
Chicago, Ill.-----	733	384	26	41	Colorado Springs, Colo.-----	20	13	3	-
Cincinnati, Ohio-----	179	101	2	8	Denver, Colo.-----	118	69	2	8
Cleveland, Ohio-----	187	96	6	8	Ogden, Utah-----	16	13	2	-
Columbus, Ohio-----	120	68	2	4	Phoenix, Ariz.-----	87	55	2	6
Dayton, Ohio-----	69	39	-	-	Pueblo, Colo.-----	21	13	-	2
Detroit, Mich.-----	362	191	3	18	Salt Lake City, Utah-----	47	28	1	4
Evansville, Ind.-----	35	23	2	3	Tucson, Ariz.-----	52	31	-	3
Flint, Mich.-----	52	27	-	7					
Fort Wayne, Ind.-----	42	32	-	1	PACIFIC:	1,567	976	30	70
Gary, Ind.-----	31	14	3	1	Berkeley, Calif.-----	21	17	-	1
Grand Rapids, Mich.-----	36	27	4	-	Fresno, Calif.-----	50	31	1	5
Indianapolis, Ind.-----	163	92	2	4	Glendale, Calif.-----	31	22	-	-
Madison, Wis.-----	52	21	-	7	Honolulu, Hawaii-----	34	19	2	2
Milwaukee, Wis.-----	126	86	4	6	Long Beach, Calif.-----	80	47	1	1
Peoria, Ill.-----	34	21	-	3	Los Angeles, Calif.-----	500	331	9	16
Rockford, Ill.-----	33	23	3	4	Oakland, Calif.-----	105	51	1	12
South Bend, Ind.-----	46	28	5	1	Pasadena, Calif.-----	28	21	-	1
Toledo, Ohio-----	118	67	3	5	Portland, Oreg.-----	108	64	1	5
Youngstown, Ohio-----	63	31	2	5	Sacramento, Calif.-----	68	35	2	2
					San Diego, Calif.-----	95	56	1	8
WEST NORTH CENTRAL:	838	502	28	37	San Francisco, Calif.-----	183	123	3	5
Des Moines, Iowa-----	75	40	1	5	San Jose, Calif.-----	36	21	1	1
Duluth, Minn.-----	25	15	-	-	Seattle, Wash.-----	142	84	7	5
Kansas City, Kans.-----	38	20	3	5	Spokane, Wash.-----	43	30	1	2
Kansas City, Mo.-----	138	94	2	3	Tacoma, Wash.-----	43	24	-	4
Lincoln, Nebr.-----	27	15	-	2					
Minneapolis, Minn.-----	107	67	7	6	Total	12,182	6,960	414	594
Omaha, Nebr.-----	81	57	4	5					
St. Louis, Mo.-----	221	117	2	8	Cumulative Totals				
St. Paul, Minn.-----	70	45	3	2	including reported corrections for previous weeks				
Wichita, Kans.-----	56	32	6	1	All Causes, All Ages -----	527,720			
					All Causes, Age 65 and over-----	300,929			
					Pneumonia and Influenza, All Ages-----	18,449			
					All Causes, Under 1 Year of Age-----	26,881			

## DIPHTHERIA - Alabama (Continued from page 363)

cases were clinically diagnosed as diphtheria and confirmed by bacteriologic examination. Among the nine siblings of the dead child, five have positive cultures for *Carynebacterium diphtheriae* from nasopharynx specimens, and two of the five also have positive cultures from cutaneous lesions. The father's cultures are negative to date.

Neighborhood and school culture surveys and a vicinity immunization program are underway.

(Reported by W.H.Y. Smith, M.D., Director, Bureau of Preventable Diseases; William J. Donald, M.D., Director, Bureau of County Health Services; Thomas Hosty, Ph.D., Director, Bureau of Laboratories, all with the Alabama State Department of Public Health; and an EIS Officer.)

### INTERNATIONAL NOTES IMMUNIZATION INFORMATION FOR INTERNATIONAL TRAVEL PHS 384

The 1967-68 edition of the booklet "Immunization Information for International Travel" is available at the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 at 40¢ a copy. There is a discount of 25 percent when 100 copies or more are ordered and delivered to the same address.

The principal changes include the recommendations of the Surgeon General's Committee on immunization practices, and changes in the immunization requirements of other countries.

Information in the booklet is kept current in the Morbidity and Mortality Weekly Report, published by the National Communicable Disease Center, Atlanta, Georgia 30333.

#### ERRATUM: Vol. 16, No. 42, p. 358

The correct number of reported cases of streptococcal sore throat and scarlet fever from Mississippi for week ending October 21 was 167 cases. Typographical error on Weekly Telegraphic Report showed 667 cases.

THE MORBIDITY AND MORTALITY WEEKLY REPORT, WITH A CIRCULATION OF 17,000, IS PUBLISHED AT THE NATIONAL COMMUNICABLE DISEASE CENTER, ATLANTA, GEORGIA.

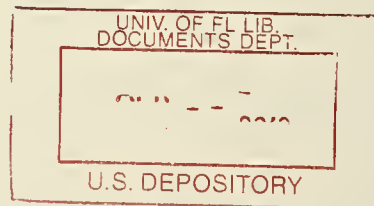
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IN ADDITION TO THE ESTABLISHED PROCEDURES FOR REPORTING MORBIDITY AND MORTALITY, THE NATIONAL COMMUNICABLE DISEASE CENTER WELCOMES ACCOUNTS OF INTERESTING OUTBREAKS OR CASE INVESTIGATIONS WHICH ARE OF CURRENT INTEREST TO HEALTH OFFICIALS AND WHICH ARE DIRECTLY RELATED TO THE CONTROL OF COMMUNICABLE DISEASES. SUCH COMMUNICATIONS SHOULD BE ADDRESSED TO:

NATIONAL COMMUNICABLE DISEASE CENTER  
ATLANTA, GEORGIA 30333  
ATTN: THE EDITOR  
MORBIDITY AND MORTALITY WEEKLY REPORT

NOTE: THE DATA IN THIS REPORT ARE PROVISIONAL AND ARE BASED ON WEEKLY TELEGRAMS TO THE NCOC BY THE INDIVIDUAL STATE HEALTH DEPARTMENTS. THE REPORTING WEEK CONCLUDES ON SATURDAY; COMPILED DATA ON A NATIONAL BASIS ARE RELEASED ON THE SUCCEEDING FRIDAY.

U.S. DEPARTMENT OF  
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